

OPTICAL PHASE MODULATION

ABSTRACT OF THE DISCLOSURE

An optical modulator provides for precoding of a high data rate phase modulated optical signal. According to one embodiment, the modulator includes a first phase modulator and a second phase modulator. The first phase modulator modulates an optical carrier signal according to a first data signal to generate a modulated optical signal. The second phase modulator modulates the modulated optical signal according to a time delayed version of its optical output signal. According to another embodiment, the modulator electrically precodes multiple data streams and modulates the precoded data streams using a series of phase modulators to generate a precoded optical data signal.